



AV2 Handheld Gaming System



User Manual

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Thank you for purchasing the Califone® AV2 Handheld Gaming System.

We encourage you to visit our website www.califone.com to register your product for its warranty coverage, sign up to receive our newsletter, download our catalog, and learn more about the complete line of Califone® audio visual products, including portable and installed wireless PA systems, multimedia players and recorders, headphones and headsets, computer peripheral equipment, visual presentation products and language learning materials.

1. IMPORTANT SAFETY INSTRUCTIONS

Before using this product, read the instruction manual for important safety information. Please retain this manual for future reference and warranty information.

Troubleshooting & Servicing

Do not attempt to service or repair the device yourself. Refer all servicing to qualified service personnel. Do not attempt to modify the device in any way. Doing so could invalidate your warranty.

Moisture and heat sources

Do not use this apparatus near water (for example, sinks, baths, pools) or expose it to rain, moisture, dripping or splashing liquids. Do not expose the unit to high temperatures, high humidity or direct sunlight.

Cleaning

When cleaning the device, please use a soft, dry cloth. Never use benzene, paint-thinner, or other chemicals on the device.

Location

Place the device in stable location, so it will not fall causing damage to the device or bodily harm.

Intended use

The product may only be used with the original parts intended for it. The product may only be used in closed and dry rooms. The intended use includes adherence to the specified installation instructions. The manufacturer accepts no liability for damage arising due to improper use.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The unit's circuitry may cause interference to nearby radios. To prevent interference, either switch the unit off or move away from the affected radio.

NOTE: This equipment has been tested and found to comply within the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

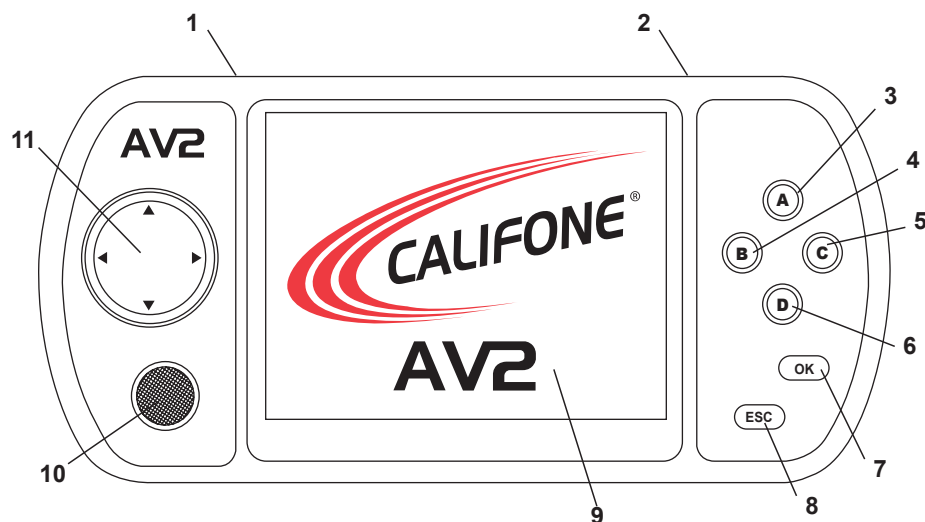
NOTE: Shielded cables may be required to be used with this unit to ensure compliance with the Class B FCC limits.

2. PACKAGE CONTENTS

- AV2 Handheld Gaming System
- AV2 Silicone Cover (Pre-installed)
- Power Adapter
- 3' USB Cable
- 3' 3.5mm to RCA A/V cord (for connection to TV/Projector)
- Micro-SD to Mini-SD Card Adapter
- 3060AV Stereo Headphone
- User Manual

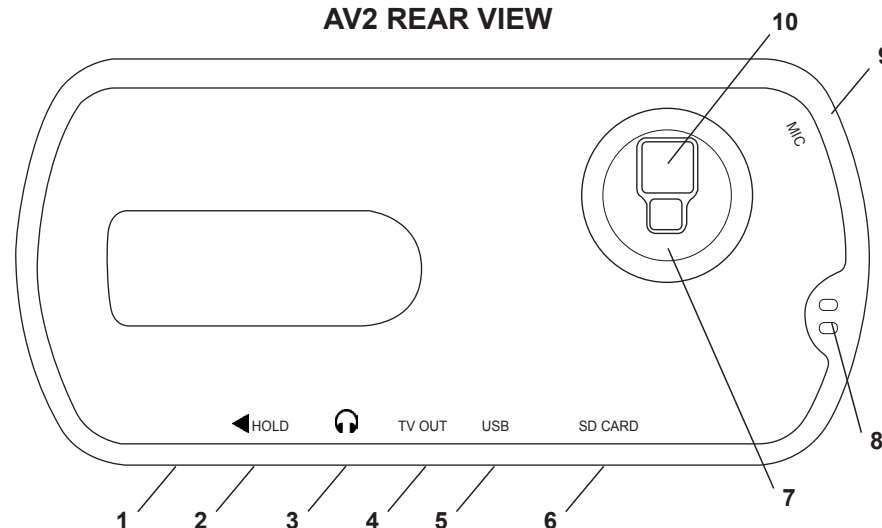
3. PART NAMES AND FUNCTIONS

AV2 FRONT VIEW



- | | |
|------------------------|--------------------------------|
| 1. Power On/Off Button | 7. OK Button |
| 2. PHOTO Button | 8. ESC Button |
| 3. A Button | 9. LCD Screen |
| 4. B Button | 10. Joystick |
| 5. C Button | 11. D-Pad (Up/Down/Left/Right) |
| 6. D Button | |

AV2 REAR VIEW



- | | |
|---|--------------------------|
| 1. RESET Button | 3. 3.5mm Headphone Jack |
| 2. HOLD Switch - Slide to ON position to temporarily disable all other button functions. Useful when listening to music with the AV2 in a pocket. | 4. 3.5mm A/V Output Jack |
| | 5. USB Jack |
| | 6. Mini-SD Card Slot |
| | 7. Built-in Speaker |
| | 8. Hole for Lanyard |

4. SETUP AND INSTALLATION

4.1 RECHARGING

1. Before use, for best performance be sure to recharge the AV2 using either the USB connection to a PC or the included power adapter.
2. Connect the power adapter to the wall outlet and then to the USB port on the back of the AV2 using the included USB cable.
3. The AV2 will immediately begin charging. A red LED behind the ESC button indicates the unit is charging. When charging is complete, the red LED will go off.
4. The battery level indicator in the upper right of the LCD screen indicates how much battery power is available. When the indicator is low, the battery should be recharged.

NOTES:

- The AV2 may be operated while recharging using the wall power adapter.
- The AV2 may also be operated while recharging using a PC. To do this, first turn on the AV2 power and then plug it into the PC for charging. The USB logo will be displayed on the AV2 screen. Then turn off the AV2 power and an icon showing a battery charging will be displayed. Then press the OK button. The AV2 can now be operated normally.

4.2 POWER ON AND OFF

1. To turn on the AV2 power, hold the power button for 2-3 seconds. The LCD will then show the startup screen. A green LED will light behind the OK button to indicate the power is on.
2. To turn off the AV2 power, hold the power button for 2-3 seconds. The LCD will then show the shutdown screen and then go black.

4.3 SETTING THE DATE/TIME

1. To set the date/time, go to Settings -> System settings -> Set Date/Time.
2. Then set the time zone and Date/Time as appropriate.

4.4 COPYING MEDIA FILES TO THE AV2

1. First, ensure the AV2 power is on.
2. Plug the AV2 into a PC using the included USB cord.
3. The PC will automatically recognize the device and the internal flash memory will be listed as a removable external drive.
4. If an SD card is installed, it will also show up as a removable external drive on the PC.

5. Note the AV2 content directories are as follows: EBOOKS, GAMES, IMAGES, MOVIES, MUSIC.
6. Copy media files such as music (mp3) and movies (avi, mpg, etc.) into the appropriate directory in the AV2 memory.

4.5 CONNECTING HEADPHONES

1. Connect the included 3060AV headphone to the headphone jack on the bottom of the AV2.
2. Adjust the volume to the desired level in the Music or Movie mode by playing music or a movie file and using the D-Pad Up and Down to increase or decrease the volume level.
3. By default, the 85 dB limiter is enabled and set for the included 3060AV headphones. To disable or change the 85 dB SPL limiter setting, go to Settings -> System settings -> Audio Limiter. Then select the desired preset. By default, Preset 1 is enabled and set for the 3060AV headphone included with the AV2. Preset 2 is set for use with the 3060AV-S and Preset 3 turns off the limiter. To use the limiter function with other Califone headphones, contact Califone Technical Support.

CAUTION: Avoid excessive volume for long periods of time as this can result in hearing damage.

CAUTION: The 85 dB SPL Limiter will only work with headphones/headsets specifically sold by Califone for use with the AV2. Check with Califone to see if your headphone/headset is compatible with this feature.

4.6 CONNECTING TO A TV/PROJECTOR/SPEAKERS

1. The AV2 may be connected to a television, projector and/or amplifier/speakers using the included 3.5mm to RCA A/V cable.
2. Connect the cord to the TV OUT jack on the bottom of the AV2 and then connect the RCA cables to the desired device.
3. Open Settings -> System Settings -> Video Output and change it to TV_NTSC or TV_PAL depending on the local television standard (Note: USA uses NTSC and Europe uses PAL)

5. BASIC OPERATION

5.1 MAIN MENU

Use the D-pad up/down/left/right to move between items in the menu. Use OK to select an item and ESC to return to a previous menu. Note that once inside an application such as the music player, movie player, or game player, the buttons will function differently. These differences are explained in each mode description below.

- **View/Play Menu:** This menu includes the playback apps for music, movies/videos, games, images/photos, and eBooks.
- **Capture Menu:** This menu includes the apps for taking photographs, recording video, and recording audio/voice with the built-in camera and microphone.
- **Settings Menu:** This menu includes the File Manager, Alarm Clock app, and System Settings.

5.2 MUSIC APP

There are many ways to play music files once in the Music App. The following submenus are available:

- **Now Playing:** Opens the Music Player to the song currently playing.
- **All Music:** Shows a list of all the music files in the MUSIC folder on the AV2.
- **Artist:** Lists all the music files by artist.
- **Album:** Lists all the music files by album.
- **Genre:** Lists all the music files by genre.
- **Favorites:** Lists only those files that have been selected as favorites from the Music Player.
- **Directory List:** View the files by directory on the internal memory or SD card.
- **Playlists:** Lists all the music playlists in the Music directory.
- **Play Mode:** Allows different playback such as normal playback (no repeat), Repeat (repeats one song), Repeat All (repeats all songs in the current list continuously, Shuffle (plays songs from the current list at random).
- **Background Play:** Enable or disable this function as desired. When enabled, the song will play even when exiting to the main menu and performing other functions on the AV2. Playback will stop when playing a movie/game/etc.
- **Equalizer:** Select different equalizer settings between Normal, Pop, Rock, Country, Jazz, Speech.

MUSIC PLAYER

Once playback of a music file starts, the Music Player will open. The following functions are available to control the music player:

- Use D-Pad Up/Down to increase/decrease volume.
- Hold D-pad left/right to rewind or fast forward in a song respectively.
- Press D-pad left/right to skip backward to the previous song or forward to the next song respectively.
- Press OK to Pause playback and OK again to resume playback.
- Press ESC to enter the Music Player submenu. The submenu includes functions to set the current song as a favorite, change the Equalizer setting, enable/disable Background Play, and return to the previous menu.

PLAYLISTS

This section describes the playlist files that can be used to play audio and video files in a specific order. Create playlist files on a computer by creating a plain txt file with a name such as such as: "playlist1.txt". Open the file and put the text in the same exact format as the example here:

[Playlist]

NumberOfEntries=3

File1=nfl:\MUSIC\file1.mp3

File2=nfl:\MUSIC\Folder1\file2.mp3

File3=nfl:\MUSIC\file3.wav

1. Replace the folder/file names in the example above with the actual folder/file names.
2. Ensure the files are in the location specified in the AV2 internal memory or SD card.
3. Once finished editing the playlist, rename the txt file with a "pls" extension, such as "playlist1.pls" and then put it into the MUSIC folder on the AV2.

NOTES:

- For video files, replace "MUSIC" with "MOVIES" and put the video files and playlist file into the MOVIES folder instead.
- Adjust the NumberOfEntries as appropriate to the correct number of files.
- Continue to increment the X in FileX based on the number of files in the playlist.
- For files located on an SD card, replace "nfl:\\" with "mmc:\\".

5.3 MOVIES APP

The Movie App allows playback of movie /video files. Upon entering the app, the following submenus are available:

- **All Movies:** Shows a list of all the movie/video files in the Movie folder on the AV2. Use the OK button to start playing a file.
- **Playlists:** Lists all the movie playlists in the MOVIE directory.
- **Resume Playback on Shutdown:** Enable this function so that the movie will resume from the point that playback was stopped/paused even after the AV2 power is turned off.
- **Display Mode:** Change the setting between Original, Normal, or Full Screen to best fit the display or TV. Default is Normal.
- **Display Bar Option:** Switch between displaying the Play Bar with the play buttons, the Time (shown in the upper part of the screen), or Subtitle (when available).

MOVIE PLAYER

Once playback of a movie file starts, the Movie Player will open. The following functions are available to control the movie player:

- Use D-Pad Up/Down to increase/decrease volume.
- Hold D-pad left/right to rewind or fast forward in a movie respectively.
- Press D-pad left/right to skip backward to the previous movie or forward to the next movie respectively.
- Press OK to Pause playback and OK again to resume playback.
- Press ESC to enter the Movie Player submenu. The submenu includes functions to change the video size setting, change the display bar, and Stop Display (return to the previous menu).

PLAYLISTS

For information, see PLAYLISTS section in 5.2 MUSIC APP.

5.4 GAMES APP

This Games App allows playback of many Adobe Flash swf format files. Open the app to show a list of all the Adobe Flash games in the Games directory.

1. Select the desired game and press the OK button. The game will start to play.

2. To exit the game, hold the ESC button for about 3 seconds.

NOTE: Some games require buttons to be mapped to specific keys or functions so that they will operate the same as they would on a PC. On the AV2, this is called Key Mapping. To change a game's key mapping, using the following procedure:

1. Select the desired game and press the A button. The Key Mapper will open.
2. To change a button mapping, select the button you wish to map on the top of the screen. Press the OK button to confirm the selection.

3. Then, select the keyboard or mouse function to map it to and press OK. Multiple pages of functions are available. Use the Next Page button to traverse between pages of functions.
4. To exit the Key Mapper, hold the ESC button for about 3 seconds. All changes are automatically saved.

Note the default keymapping is as follows:

AV2 Control	Keyboard/Mouse Equivalent
D-pad Up/Down/Left/Right	Keyboard Up/Down/Left/Right
Joystick	Mouse movement ** ** Note that this mapping cannot be changed.
A Button	Backspace
B Button	Tab
C Button	Shift
D Button	Spacebar
OK Button	Enter (Return)
PHOTO Button	Mouse Left Click

5.5 IMAGES APP

1. Upon entering the Images App, the thumbnail images of all the files in the Images directory will be displayed.
2. To view an image, use the D-pad to navigate to the desired image and press the OK button.
3. Use the D-pad to go to the previous or next image.
4. Use the PHOTO button to rotate the image.
5. Use the ESC button to return the thumbnail display.
6. To return to the main menu, continue to press the ESC button until the main menu appears.

5.6 EBOOKS APP

1. Upon entering the eBooks App, a list of all the files in the eBooks directory will be displayed.
2. To begin reading, simply select the desired file with the OK button.
3. Press the D-pad Right to open the eBooks submenu. From the submenu, many items are available. Go to a saved bookmark, or create a new one. Change the D-pad up/down scroll speed, auto scroll speed, background, text color/size/etc., or go to a specific page.
4. Press the OK button to Auto-scroll. Press the OK button again to stop.

5.7 CAMERA APP

The Camera App allows taking of still photos using the built-in camera. The following options are available in the menu:

- **Take Photo:** Select to start taking photos.
 - Once in Take Photo Mode, open the Photo Settings menu by pressing the D-pad Right. Press the ESC button to Save/Exit the Settings Menu. The Settings menu includes the following items:
 - **Delay:** Select Off, 5, 1, 15, 20 seconds of delay until the photo is taken. (Default: Off)
 - **Resolution:** Select from 320x240 to 1600x1200 resolution. (Default: 640x480)
 - **Shutter Audio:** Enable/Disable shutter clicking sound. (Default: Enabled)
 - **White Balance:** Change between various white balance settings (Auto, Cloudy, Sunshine, etc.) (Default: Auto)
 - **Brightness:** Change from -3 to +3 (Default: 0)
 - **Special Effects:** Change between various settings (Off, Black & White, Yellow, Negative) (Default: Off)
 - **Day/Night:** Change between Day and Night mode (Default: Day)
 - **Contrast:** Change from -3 to +3 (Default: 0)
 - **Saturation** Change from -3 to +3 (Default: 0)
 - To take a photo, press the PHOTO button. Once the photo is taken, it will be displayed on the screen for 2 seconds. NOTE: Photos are saved in jpg format in the CAMERA folder inside the IMAGES folder.
 - To exit Take Photo Mode, press the ESC button.
- **My Photos:** List all the photos already taken.
- **Save Path:** Select this item to choose between saving photos to the internal memory or SD card.

5.8 VIDEO APP

The Video App allows recording of video using the built-in camera and microphone. The following options are available in the menu:

- **Record Video:** Select to start recording video.
 - Once in Record Video Mode, open the Video Settings menu by pressing the D-pad Right. Press the ESC button to Save/Exit the Settings Menu. The Settings menu includes the following items:
 - **Special Effects:** Change between various settings (Off, Black & White, Yellow, Negative) (Default: Off)
 - **Brightness:** Change from -3 to +3 (Default: 0)
 - **Video Size:** Select 320x240 or 640x480 resolution. (Default: 640x480)
 - **White Balance:** Change between various white balance settings (Auto, Cloudy, Sunshine, etc.) (Default: Auto)
 - **Day/Night:** Change between Day and Night mode (Default: Day)
 - To start recording video, press the PHOTO button. To stop recording, press the PHOTO button again. NOTE: Video recordings are saved in avi format in the VIDEO folder inside the MOVIE folder.
 - To exit Record Video Mode, press the ESC button.
- **My Videos:** List all the videos already recorded
- **Save Path:** Select this item to choose between saving videos to the internal memory or SD card.

5.9 VOICE RECORDER APP

The Voice Recorder App allows recording of audio using the built-in microphone. The following options are available in the menu:

- **Start Recording:** Select to start recording audio from the built-in microphone. Recording will start immediately. Press OK button to stop recording and automatically save the file. To start a new recording, press the OK button again. Press the ESC button to exit. NOTE: Audio recordings are saved in mp3 format in the VOICE folder inside the MUSIC folder.
- **My Recordings:** List all the saved audio recordings.
- **Save Path:** Select this item to choose between saving videos to the internal memory or SD card.

5.10 FILE MANAGER

Under the settings menu, the file manager allows basic manipulation of the files on the internal of SD card memory.

- Once inside the File Manager, locate the files to modify/delete.
- Press the OK button to select put a check mark next to those files.
- Once done selecting files, press the D-Pad Right to open the menu.
 - If a single file is selected, the menu options are “open”, “copy”, “delete”, or “move to”.
 - If multiple files are selected, the options are “copy”, “delete”, or “move to”.

5.11 ALARM

Under the settings menu, the alarm allows the user to set a built-in alarm clock. The menu options are as follows:

- **Enable Alarm:** Enable/Disable the alarm clock.
- **Alarm Time:** Set the time for the alarm to activate.
- **Alarm Sound:** Set the audio file to be used for the alarm.
- **Enable the Alarm while shutdown?:** If enabled, the alarm will activate at the designated time even if the AV2 power is turned off. If disabled, the AV2 power must be on for the alarm to activate.

5.12 SYSTEM SETTINGS

Under the settings menu, the System Settings allows modification to basic system settings. The menu options are as follows:

- **Menu Animation:** Modify the animation when opening the menus.
- **Timed Shutdown:** To save battery, automatically turns off the AV2 (when not in use) after 10, 30, or 60 minutes (Default: 10 minutes)
- **Backlight Auto Off:** To save battery, automatically turns off the AV2 backlight after non-use. Set to 5, 10, 15, 20, 30 seconds, or Always On. (Default: Always On)
- **Brightness:** Set from 1 to 5 (Default: 4)
- **Video Output:** Set to output to the built-in LCD or the A/V output (NTSC or PAL). (Default: LCD)
- **Audio Limiter:** Set to one of 3 presets to limit the audio output level.
- **Bootup Screen:** Set to always load the Home Screen or go to the previous screen when the AV2 is powered on.
- **Set Date/Time:** Menu for setting the date and time as well as Date/Time display formats.
- **Languages:** The AV2 currently only supports English menus.

- **Reset to Default Background:** Select to reset the menu backgrounds to their default.
- **System:** View System Information, reset the AV2, format the memory, or update the firmware.

6. TROUBLESHOOTING

Issue	Resolution
The unit does not power on.	Hold the Power button for 2-3 seconds. If the unit still does not power on, the unit may need to be recharged.
The buttons don't function.	Check if the HOLD switch is in the ON position. If so, switch it to the OFF position.

7. SPECIFICATIONS & FEATURES

Features	- Built-in Camera, microphone, and speaker for audio/video recording - Support for many audio and video formats - Supports pls format playlists for audio/video files - Support for many Adobe Flash games - Rechargeable via USB or power adapter
Power Requirements	- Uses 3.7 V / 1200 mAh Li-Ion battery. - Included 100-240VAC~50-60Hz switching-type power adapter with USB plug (DC 5V/1A output)
Supported Video Files/Codecs	MPG, MP4, WMV, RealVideo, ASF, AVI ** Note that some files with these extensions/codecs may not be supported.
Supported Audio Files/Codecs	MP3, AAC, WMA, RealAudio, Quicktime, wav ** Note that some files with these extensions/codecs may not be supported.
Supported Adobe Flash Formats	Partial support for ActionScript 2 class/function names. Custom SDK for additional classes/functions.
Supported eBook Formats	TXT files
Operating System Compatibility	Windows 2000/XP/Vista/Windows 7 32-bit & 64-bit, Mac OS
USB Compatibility	USB 2.0
Photo Format	JPG format (Resolution selectable from 320x240 to 1600x1200)
Video Recording Format	AVI format (320x240 or 640x480 @ 15 fps)
Audio Recording Format	MP3 format (128 kbps stereo)
Battery Usage Time	> 3.5 hours
Battery Recharge Time	< 4 hours (AV2 power off while charging) < 7 hours (AV2 power on while charging) Recharge using power adapter or USB connected to PC.
Product Dimensions	6" x 3" x 0.75"
Product Weight (incl. accessories)	??? oz

8. WARRANTY

Califone warrants this product to be free from defective material and workmanship for one year from the purchase date. Our "Project Intercept" Customer Satisfaction program will replace defective parts and repair malfunctioning equipment under this warranty when the defect occurs under normal use.

All Damage Claims Must Be Made With the Freight Carrier

Notify the freight carrier immediately if you observe any damage to the shipping carton or product. Repack the unit in the carton and await inspection by the carrier's claim agent. Notify your dealer of the pending freight claim.

Returning Your Unit for Service or Repairs

Should your unit require service, contact our Customer Service Department online at califone.com/techsupport or via email warranty@califone.com or by phone at 800-722-0500 / 818-407-2400 to first obtain an RA (Return Authorization) number before returning it to Califone. The unit must be returned to our factory via prepaid transportation only after the factory issues an RA number, which must be clearly written on the outside of the box.

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